

REMARKS

Claims 23-39, 41-43, and 45-65 are pending.

Allowed Claims

Applicants note with appreciation that Claims 23-39, 48-60, and 63-65 are allowed.

Objected Claim

Claim 46 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. As discussed in detail below, independent Claim 45 is patentable over Radens et al. Since Claim 46 depends from and includes all of the limitations of Claim 45, Claim 46 is also patentable over Radens et al.

Rejections Under 35 U.S.C. §102

Claims 41-43, 45, 47, and 61-62 are rejected under 35 U.S.C. §102(b) as being anticipated by Radens et al., U.S. Patent No. 6,251,710. Applicants respectfully disagree that Claims 41-43, 45, 47, and 61-62 are anticipated by Radens et al., and traverse this rejection.

Radens et al. do not disclose or suggest depositing metal within the opening to form the conductive contact, wherein depositing metal within the opening comprises depositing a blanket metal layer, and etching the blanket metal layer to form a metal line, as recited in independent Claim 45. Similarly, Radens et al. do not disclose or suggest depositing a conductive material over the dielectric layer such that the vias are filled with the conductive material and a conductive layer is formed over the dielectric layer and the filled vias, and etching the conductive layer to form a plurality of conductive lines above the dielectric layer and the filled vias, as recited in independent Claim 61.

Radens et al. teach to form an anti-fuse dielectric layer 54 having a typical thickness range from about 2 to about 200 nm. The anti-fuse dielectric layer 54 is the only layer in Radens et al. that meets the insulating layer and dielectric layer limitations of independent Claims 45 and 61, as it is the only layer in Radens et al. that is disclosed as being less than about 100 nm. While Radens et al. disclose forming a via 58 in the anti-fuse dielectric layer 54 and filling it with a

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conductive material 64 using conventional deposition processes, Radens et al. do not teach or suggest etching a layer of conductive material over the dielectric layer 54 to form a metal/conductive line. Radens et al. teach planarization of the structure using conventional planarization techniques, such as chemical mechanical polishing (CMP). See Radens et al., at col. 5, line 66 – col. 6, line 2. Moreover, the material left is anti-fuse material in the shape of a via, not a metal line. Thus, Radens et al. do not teach or suggest etching a metal or conductive layer over the dielectric layer to form a metal or conductive line, as recited in Claims 45 and 61.

Independent Claims 45 and 61 are therefore patentable as they are not anticipated by Radens et al. Claims 41-43, 46, 47, and 62, which depend from and include all of the limitations of Claim 45 or Claim 61, are therefore also patentable over Radens et al. Furthermore, each of the dependent claims recites further distinguishing features of particular utility.

Conclusion

Applicants respectfully submit that all of the pending claims are patentably distinguishable over the art of record. The cited references, either alone or in combination, do not teach or suggest Applicants' claimed invention.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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